

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number
WO 2005/031238 A1

(51) International Patent Classification⁷: **F28D 15/02**

102, 104-120 Dangsang-dong 6-ga, Yeongdeungpo-gu, Seoul 150-807 (KR).

(21) International Application Number:
PCT/KR2004/002450

(74) Agents: LEE, Sang-Yong et al.; 4F., Byukcheon Bldg. 1597-5, Seocho-dong, Seocho-gu, Seoul 137-876 (KR).

(22) International Filing Date:
23 September 2004 (23.09.2004)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2003-0068874 2 October 2003 (02.10.2003) KR

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): LG CABLE LTD. [KR/KR]; 19-20F Asem Tower, 159 Samsung-dong, Gangnam-gu, Seoul 135-090 (KR).

(72) Inventors; and

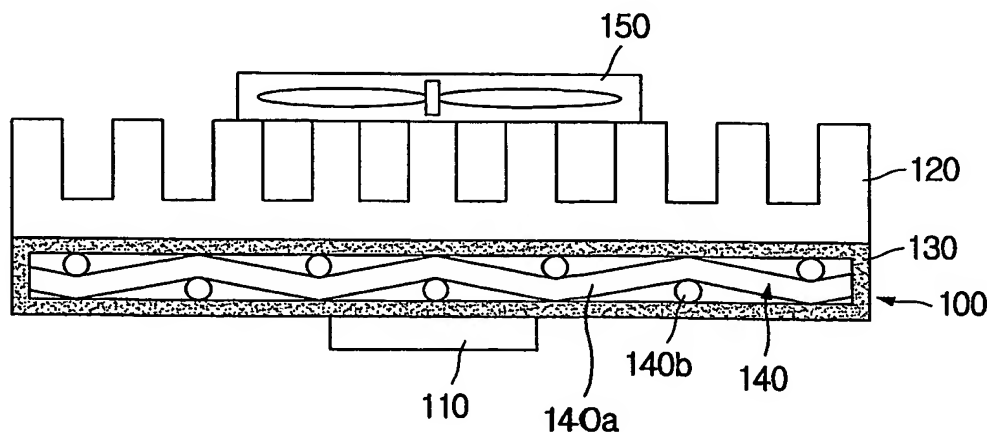
(75) Inventors/Applicants (*for US only*): LEE, Yong-Duck [KR/KR]; 109-2001 Moraksan Hyundai Apt. Ojeon-dong, Euiwang-si, Gyeonggi-do 437-070 (KR). HONG, Young-Ho [KR/KR]; 210-1401 Hansolmaeul LG Apt. Jeongja-dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-909 (KR). OH, Min-Jung [KR/KR]; 112-301 Samsung Apt. Anyang 1-dong, Manan-gu, Anyang-si, Gyeonggi-do 430-710 (KR). KIM, Hyun-Tae [KR/KR];

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FLAT PLATE HEAT TRANSFER DEVICE



(57) Abstract: Disclosed is a flat plate heat transfer device, which includes a thermal-conductive flat case installed between a heat source and a heat emitting unit and containing a working fluid which is evaporated with absorbing heat from the heat source and is condensed with emitting heat to the heat emitting unit; and one layer of mesh installed in the flat case and configured so that wires are woven to be alternately crossed up and down. A dispersion channel of a vapor is formed along a surface of the wire from a cross point of the mesh near the heat source, and a flow channel of a liquid is formed by means of a capillary phenomenon along a length direction of the wire from a mesh lattice near the heat emitting unit to a mesh lattice near the heat source.

WO 2005/031238 A1